



National Weather Service

Storm Data and Unusual Weather Phenomena



September 2001

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

Jefferson County									
2 SE Waterloo	03	1435CST			0	0			Hail (0.75)
Waukesha County									
Dousman	03	1525CST			0	0			Thunderstorm Wind (G50)
Jefferson County									
3 WSW Palmyra	03	1530CST			0	0			Thunderstorm Wind (G50)
Racine County									
Wind Lake	03	1545CST			0	0			Thunderstorm Wind (G50)
Waukesha County									
Big Bend to Muskego	03	1545CST 1555CST			0	0			Thunderstorm Wind (G56)
Walworth County									
Linton to Genoa City	03	1637CST 1645CST			0	0			Thunderstorm Wind (G50)

Scattered, short lines or clusters of severe thunderstorms moved through southeast Wisconsin during the afternoon hours. Powerful straight-line downburst winds toppled many large trees near Palmyra (Jefferson Co.), across southern Waukesha County from Dousman to Big Bend to Muskego, in Wind Lake (Racine Co.), and from Linton to Genoa City in Walworth County. Nickle-size hail was also noted southeast of Waterloo (Jefferson Co.). Law enforcement officials and trained spotters estimated wind gusts to be in the 50 to 56 knot range (58 to 65 mph). Synoptically, the severe storms developed ahead of a cold front pushing east across Wisconsin, along a cloud/no cloud line. Surface dewpoints around 70 with maximum air temperatures in the 84 to 88 degree range produced Lifted Indices of -4 to -6.

Columbia County									
Lodi to 5 NE Portage	07	1135CST 1145CST			0	0			Thunderstorm Wind (G52)
Green Lake County									
Princeton to 7 W Berlin	07	1150CST 1200CST			0	0			Thunderstorm Wind (G52)
Marquette County									
5 E Montello	07	1150CST			0	0			Thunderstorm Wind (G50)
Dane County									
Windsor	07	1155CST			0	0			Thunderstorm Wind (G50)
Dodge County									
Beaver Dam	07	1307CST			0	0			Thunderstorm Wind (G52)

The first of two rounds of severe thunderstorms to affect southern Wisconsin on September 7th struck parts of the south-central and southeast counties in the early afternoon hours. Powerful straight-line downburst winds toppled many large trees east of Montello (Marquette Co.), in the northwest part of Green Lake County north of Princeton, in the Windsor area (Dane Co.), and in the Beaver Dam area (Dodge Co.). Law enforcement officials and trained spotters estimated wind gusts to be in the 50 to 52 knot range (58 to 60 mph). The storms weakened as they moved east into Fond du Lac and Jefferson Counties where winds gusts were only in the 30 to 40 knot range (35 to 46 mph). Synoptically, the severe storms developed ahead of a cold front pushing east across Wisconsin, while the parent low pressure moved northeast through northwest Wisconsin. Surface dewpoints were in the lower 70s with maximum air temperatures in the mid 80s.

Iowa County									
Rewey to Dodgeville	07	1745CST 1755CST			0	0			Thunderstorm Wind (G56)
Lafayette County									
Benton to Shullsburg	07	1745CST 1758CST			0	0			Thunderstorm Wind (G56)



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<u>WISCONSIN, Southeast</u>									
Sauk County									
Lake Delton to 4.3 SE Lake Delton	07	1805CST 1810CST			0	0	75K		Thunderstorm Wind (G65)
Dane County									
Madison	07	1810CST 1815CST			0	0			Thunderstorm Wind (G50)
Green County									
Monroe	07	1810CST			0	0			Thunderstorm Wind (G52)
Columbia County									
Portage to Lodi	07	1820CST			0	0			Thunderstorm Wind (G56)
Rock County									
Beloit	07	1820CST 1930CST			0	0			Urban/Sml Stream Fld
Rock County									
1 SW Evansville	07	1820CST			0	0			Thunderstorm Wind (G56)
Marquette County									
Endeavor to Packwaukee	07	1825CST 1830CST			0	0			Thunderstorm Wind (G52)
Rock County									
Beloit	07	1825CST			0	0	10K		Thunderstorm Wind (G56)
Green Lake County									
3 NE Kingston to Berlin	07	1830CST 1850CST			0	0			Thunderstorm Wind (G56)
Columbia County									
3 S Cambria	07	1855CST			0	0			Thunderstorm Wind (G56)
Jefferson County									
1 S Palmyra	07	1920CST			0	0			Thunderstorm Wind (G52)
Walworth County									
Walworth to Elkhorn	07	1930CST 1945CST			0	0			Thunderstorm Wind (G56)
Waukesha County									
1 SW Oconomowoc	07	1940CST			0	0			Thunderstorm Wind (G52)
Dane County									
Madison	07	2100CST 2300CST			0	0			Urban/Sml Stream Fld

The second of two rounds of severe thunderstorms to affect southern Wisconsin on September 7th struck parts of the south-central and southeast counties in the early evening hours. A north-south line of storms moving east through southern Wisconsin generated powerful straight-line downburst winds that toppled many large trees in parts of Iowa, Lafayette, Sauk, Coumbia, Marquette, Green Lake, Dane, Green, Rock, Jefferson, Waukesha, and Walworth Counties. Scattered power outages were also noted, resulting in the loss of electrical power to about 1000 customers in southeast Wisconsin. Law enforcement officials and trained spotters estimated wind gusts to be in the 50 to 56 knot range (58 to 65 mph). However, thunderstorm winds probably topped out around 65 knots (75 mph) in the area about 4 miles southeast of Lake Delton where newspaper accounts indicated that a silo and pole shed were blown down, and other buildings were damaged. One of the large trees that were toppled in Beloit damaged two vehicles, and trapped passengers in one of them for about one hour. In addition, heavy rains of 1 to 2 inches accompanied some of the storms, resulting in flooded roads in and around Madison (Dane Co.) and Beloit (Rock Co.). Water depths on some of Madison's and Beloit's roads were 1 to 2 feet deep in low spots, and several vehicles in Madison stalled. In Beloit, up to 1.64 inches of rain was measured, while 1.85 inches fell at Madison's Truax Field. Synoptically, low pressure moved northeast through northwest Wisconsin. Surface dewpoints were in the lower 70s with maximum air temperatures in the mid 80s. The individual thunderstorm cells moved northeast at 35 to 43 knots (40 to 50 mph).



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WISCONSIN, Southeast

Dane County

Verona **08** **0120CST** **0** **0** **5K** **Thunderstorm Wind (G61)**

An isolated microburst generated by a severe thunderstorm resulted in tree or structural damage on seven properties on the northwest side of the city of Verona in the pre-dawn hours. One shed was destroyed a shed, and one home sustained minor roof damage due to toppled trees. In addition, a couple backyard decks and a free-standing wooden swing-set were damaged. Based on newspaper pictures, maximum wind gusts were probably in the 61 knot range (70 mph), and damage was estimated at about \$5,000. The severe thunderstorm followed two rounds of severe weather that occurred over parts of south-central and southeast Wisconsin on September 7, 2001.

Green County

Monroe **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Iowa County

Dodgeville **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Jefferson County

3 SE Sullivan **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Kenosha County

Kenosha Muni Arpt **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Lafayette County

7 N Argyle to **18** **2000CST** **0** **0** **Heavy Rain**
Argyle **19** **0600CST**

Milwaukee County

Milwaukee Mtchell Ar to **18** **2000CST** **0** **0** **Heavy Rain**
Milwaukee **19** **0600CST**

Rock County

Beloit **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Walworth County

Genoa City **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Waukesha County

Eagle **18** **2000CST** **0** **0** **Heavy Rain**
19 **0600CST**

Several rounds of moderate to heavy rains dumped .75 to 2.22 inches of rain across parts of south-central and southeast Wisconsin. Many locations had 1 to 1.5 inches during the overnight hours. The Racine city area (Racine Co.) recorded 2.16 to 2.22 inches (probably record amounts for the 24 hour period ending at 0600CST on September 19, 2001), resulting in minor urban flooding. There were other scattered reports of water briefly covering some roads in low-lying areas across the remainder of south-central and southeast Wisconsin. Additional rainfall reports include: Clinton WWTP (Rock Co.) 1.38 inches, Kenosha Municipal Airport 1.38 inches, Blanchardville (7 N Argyle, Lafayette Co.) 1.33 inches, Genoa City (Walworth Co.) 1.28 inches, Milwaukee Mitchell Field (Milwaukee Co.) 1.25 inches, Eagle 1.15 inches (amateur radio operator), Ft. Atkinson WWTP 1.06 inches, Beloit College (Rock Co.) 1.04 inches, and the Dodgeville WWTP (Iowa Co.) 0.92 inches. These heavy rains ultimately lead to total September 2001 rainfall amounts (TV school network reports) of 6.42 inches in Brodhead (Green Co.), 7.03 inches in Barneveld (Iowa Co.), 7.72 inches in Janesville (Rock Co.), 6.92 inches in Lake Geneva (Walworth Co.), 6.03 inches in Wisconsin Dells (Columbia Co.), 6.63 inches on the southwest side of Madison (Dane Co.).



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WISCONSIN, Southeast

WIZ058>060-064>066-069>072 Dodge - Washington - Ozaukee - Jefferson - Waukesha - Milwaukee - Rock - Walworth - Racine - Kenosha

19 0130CST 0 0 Strong Wind
0330CST

Strong, east-northeast winds gusting to 31 to 49 knots (36 to 57 mph), raked parts of south-central and southeast Wisconsin during the pre-dawn morning hours on September 19, 2001. The majority of the gusts were in the 31 to 40 knot range (36 to 46 mph), however a gust of 49 knots (57 mph) was recorded at the NWS Forecast office southeast of Sullivan (Jefferson Co.) at 0220CST. A gust of 43 knots (49.5 mph) was noted at Carthage College on the northside of the city of Kenosha (Kenosha Co.), and a gust of 41 knots (47 mph) was recorded at Milwaukee Mitchell Field (Milwaukee Co.) at 0230CST. Law enforcement officials and newspaper accounts reported that small tree branches were knocked out of trees, resulting in scattered power outages. Synoptically, the strong winds were the result of a tight surface pressure gradient on the north side of a deepening low pressure that moved northeast through northern Illinois. The low moved through the northern part of the city of Chicago, IL, to the mid-point of Lake Michigan east of Milwaukee, WI. Surface observation stations recorded pressure falling rapidly as the wind gusts increased in magnitude.

**Racine County
Racine**

20 2200CST 0 0 9K Lightning

Lightning struck and exploded a 100-foot tall tree in the city of Racine (Racine Co.), resulting in debris damage to 6 homes within 200 feet. Mainly window and roof damage was noted. The \$9,000 in damage is an estimate based on newspaper accounts.

WIZ056>057-062-067 Sauk - Columbia - Iowa - Lafayette

29 2300CST 0 0 Fog
30 0800CST

Dense fog developed during the overnight hours over parts of south-central and southeast Wisconsin and persisted until the mid-morning hours. Visibilities were reduced to 1/8 to 1/4 mile, resulting in delayed school openings and delayed airplane traffic. Newspaper accounts noted several vehicle accidents. The dense fog was the result of clearing skies and a light west-northwest surface flow behind a weak front that passed through the area earlier.

WIZ070>072 Walworth - Racine - Kenosha

29 2300CST 0 0 Fog
30 0700CST

Dense fog developed during the overnight hours over parts of south-central and southeast Wisconsin and persisted until the mid-morning hours. Visibilities were reduced to 1/8 to 1/4 mile, resulting in delayed school openings and delayed airplane traffic. Newspaper accounts noted several vehicle accidents. The dense fog was the result of clearing skies and a light west-northwest surface flow behind a weak front that passed through the area earlier.

WIZ063>065-068>069 Dane - Jefferson - Waukesha - Green - Rock

30 0200CST 0 0 Fog
0800CST

Dense fog developed during the overnight hours over parts of south-central and southeast Wisconsin and persisted until the mid-morning hours. Visibilities were reduced to 1/8 to 1/4 mile, resulting in delayed school openings and delayed airplane traffic. Newspaper accounts noted several vehicle accidents. The dense fog was the result of clearing skies and a light west-northwest surface flow behind a weak front that passed through the area earlier.

WIZ047-051>052-058>059 Green Lake - Fond Du Lac - Sheboygan - Dodge - Washington

30 0300CST 0 0 Fog
0800CST

Dense fog developed during the overnight hours over parts of south-central and southeast Wisconsin and persisted until the mid-morning hours. Visibilities were reduced to 1/8 to 1/4 mile, resulting in delayed school openings and delayed airplane traffic. Newspaper accounts noted several vehicle accidents. The dense fog was the result of clearing skies and a light west-northwest surface flow behind a weak front that passed through the area earlier.



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